

Application Number 10/533231
Response to the Office Action dated July 14, 2008

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks. Claims 1-18 are pending. Claims 19-21 have been cancelled without prejudice or disclaimer.

Claim 1 has been amended to clarify the components of the fluorine-modified silicone resin as supported by the specification at page 9, lines 18-22.

Claims 1, 6, 11, 12, and 14-18 have been rejected under 35 U.S.C. 103 (a) as being unpatentable over Yuasa et al. (U.S. Patent No. 6,579,653) in view of Nakamura et al. (U.S. Patent Application Publication No. 2002/0064724). Applicants respectfully traverse this rejection.

The two-component developer of claim 1 requires a carrier and a toner. The carrier of claim 1 requires a core material whose surface is coated with resin including fluorine-modified silicon resin containing an aminosilane coupling agent. The use of this carrier coated with the fluorine-modified silicon resin containing the aminosilane coupling agent of claim 1 provides advantageous properties of the two-component developer of claim 1 such as durability by increasing coating resin hardness, reducing deterioration of toner-spent, stabilizing charging, less consumption of a toner, and less developing memory, i.e., reducing remaining images in history, when used in combination with a toner containing a particular type of wax of claim 1 (see page 12, lines 7-23 of the specification).

Yuasa discloses a carrier in a developer that has a core material whose surface is coated with resin containing conductive fine powder (coln. 40, lines 1-3) and lists the resin materials used for coating, for example, silicone resins, a mixture of silicon-type resin and acrylic resin, and ambient temperature curing type silicone resin (see coln. 40, line 44 – coln. 41, lines 6). Although Yuasa further teaches use of magnetic fine powder that is added to a black toner to form a magnetic toner and lists an aminosilane coupling agent as one of five alternative coupling agents used for treatment of the surface of the

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magnetic fine powder in the toner (see coln. 24, lines 36-37 and coln. 26, lines 26-30), the magnetic fine powder and the aminosilane coupling agent in Yuasa are used for the toner and not for a carrier (see coln. 24, lines 36-37 and coln. 26, lines 26-62). In addition, Yuasa does not disclose use of the aminosilane coupling agent in fluorine-modified silicon resin (see coln. 26, lines 26-30 and 50-62). Accordingly, claim 1 is distinguished from Yuasa.

Nakamura discloses use of fluorine-modified silicone resin for a carrier (see para. 0021) but fails to disclose that the fluorine-modified silicone resin contains an aminosilane coupling agent as claim 1 requires. Accordingly, Nakamura does not remedy the deficiencies of Yuasa.

Moreover, Yuasa does not disclose a purpose to use the aminosilane coupling agent for the treatment of the surface of the magnetic fine powder in the toner. Therefore, there is no reasonable basis to apply the aminosilane coupling agent used for the toner of Yuasa and not contained in the fluorine-modified silicon resin for a carrier in a two-component developer of Nakamura. Accordingly, claim 1 is distinguished from Yuasa in view of Nakamura, and this rejection should be withdrawn.

Claims 2 and 3 have been rejected under 35 U.S.C. 103 (a) as being unpatentable over Yuasa et al. (U.S. Patent No. 6,575,963) in view of Nakamura et al. (U.S. Patent Application Publication No. 2002/0064724), as applied to claim 1 above, and further in view of Mizoe et al. (U.S. Patent Application Publication No. 2003/0152856). Applicants respectfully traverse this rejection.

Applicants understand that Yuasa reference actually is U.S. Patent No. 6,579,653 that is cited in the rejection of claims 1, 6, 11, 12, and 14-18 above. Mizoe does not remedy the deficiencies of Yuasa in view of Nakamura. Therefore, this rejection should be withdrawn. Applicants are not conceding the correctness of the rejection.

Claims 4, 5, 7 and 13 have been rejected under 35 U.S.C. 103 (a) as being unpatentable over Yuasa et al. (U.S. Patent No. 6,575,963) in view of Nakamura et al. (U.S. Patent Application Publication No. 2002/0064724), as applied to claim 1 above,

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and further in view of Yuasa et al. (U.S. Patent Application Publication No. 2002/0086229). Applicants respectfully traverse this rejection.

Applicants understand again that '963 Yuasa is U.S. Patent No. 6,579,653 cited above. Yuasa '229 like Yuasa '653 discloses a magnetic body that is used for a toner and can be treated with a coupling agent, and the reference lists the aminosilane coupling agent as one of five alternative coupling agents used for treating the surface of the magnetic fine powder in the toner, not a carrier of the two-component developer (see para. [005], [0053], [0055], [0056], and [0191]). In addition, like Yuasa '653, Yuasa '229 does not disclose use of the aminosilane coupling agent in fluorine-modified silicon resin (see para. [0191]). Therefore, Yuasa '229 does not remedy the deficiencies of Yuasa '653 in view of Nakamura. Accordingly, this rejection should be withdrawn. Applicants are not conceding the correctness of the rejection.

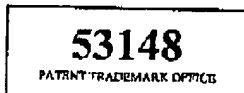
Claims 8-10 have been rejected under 35 U.S.C. 103 (a) as being unpatentable over Yuasa et al. (U.S. Patent No. 6,575,963) in view of Nakamura et al. (U.S. Patent Application Publication No. 2002/0064724, and further in view of Shimizu et al. (U.S. Patent No. 6,117,607). Applicants respectfully traverse this rejection.

Applicants understand again that Yuasa is U.S. Patent No. 6,579,653. Shimizu does not remedy the deficiencies of Yuasa in view of Nakamura. Therefore, this rejection should be withdrawn. Applicants are not conceding the correctness of the rejection.

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In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.




Dated: August 1, 2008

DPM/my/ad/pjk

Respectfully submitted,

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